DRAFT General Permits Under the National Pollutant Discharge Elimination System (NPDES).

This permit is organized as a single permit with the effluent limitations and specific conditions for facilities in Massachusetts (including both Commonwealth and Indian Country Lands) and New Hampshire in Parts I and II, respectively. Additional State or Indian country land conditions are contained in Part I.O. Parts III and IV are common to both permits.

Part I. Massachusetts General Permit No. MAG580000 for Minor POTWs and Sanitary Wastewater Facilities Discharging to Freshwaters and Marine Waters with Dilution Factors at Least 50:1

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§ 1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§ 26-53), operators of POTWs and other treatment works primarily treating domestic sewage located in Massachusetts (including both Commonwealth and Indian Country lands), which discharge treated sanitary wastewater to the classes of waters as designated in the Massachusetts Water Quality Standards, 314 CMR 4.00 et seq.; are authorized to discharge to all waters, unless otherwise restricted, in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective when issued.

This permit and the authorization to discharge expire at midnight, five years from the effective date, which is the date specified in the notice of final issuance for the general permit, published in the <u>Federal Register</u>.

Signed this day of

DRAFT

Linda M. Murphy, Director Office of Ecosystem Protection U.S. Environmental Protection Agency Boston, MA 02114

DRAFT

Glenn Haas, Director Division of Watershed Management Department of Environmental Protection Commonwealth of Massachusetts Boston, MA

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Attachment D Endangered Species Guidance	
EPA Region I NPDES Permit Sludge Compliance Guidance (November 4,1999)	
EPA Region I NPDES Permit Sludge Compliance Guidance (November 4,1999)	

Part IV. Standard Conditions

Part I.A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for Minor facilities discharging to Freshwaters with Dilution Factors at least 50:1

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at the end of all processes, including disinfection and dechlorination or at an alternative representative location, approved by the EPA and MADEP.

Effluent Characteristic	<u>Units</u>	Discharge Limitation			Monitoring Requirement	
		Average <u>Monthly</u>	Average <u>Weekly</u>	Maximum <u>Daily</u>	Measurement <u>Frequency</u>	Sample Type (12)
Flow ¹	MGD	Limit		Report	Continuous	Recorder
BOD ₅	mg/l	30	45	Report ⁴	1/Week ²	24-Hour Composite ³
BOD ₅	lbs/day	(See State Permit	Condition I.D.1.c)			
CBOD ₅ ¹³	mg/l	25	40	Report ⁴	1/Week ²	24-Hour Composite ³
CBOD ₅ ¹³	lbs/day	(See State Permit Condition I.D.1.c)				
TSS	mg/l	30	45	Report ⁴	1/Week ²	24-Hour Composite ³
TSS	lbs/day	(See State Permit	Condition I.D.1.c)			
рН	Standard Units	6.0 to 9.0			5/week	Grab
Fecal Coliform Bacteria 4,5	cfu/100 ml	20 14		100 14	1/Week	Grab
Fecal Coliform Bacteria 4,5	cfu/100 ml	200		400	1/Week	Grab
Total Residual Chlorine 4,6	mg/l	See Table A		See Table A	5/week	Grab
Whole Effluent Toxicity, LC_{50}^{7} Dilution Factor \leq 100:1	percent			100	1/year ^{8,9}	24-Hour Composite ³
Whole Effluent Toxicity, LC ₅₀ ⁷ Dilution Factor >100:1 and <1000:1	percent			≥ 50	1/year ^{8,9}	24-Hour Composite ³

Part I.A. - Continued

	<u>Units</u>	Discharge Limitation		Monitoring Requirement		
Effluent Characteristic						
		Average <u>Monthly</u>	Average Weekly	Maximum <u>Daily</u>	Measurement Frequency	Sample Type (12)
Hardness (as CaCO ₃) ¹⁰	mg/l			Report	1/year	24-Hour Composite ³
Total Organic Carbon 10	mg/l			Report	1/year	24-Hour Composite ³
Total Ammonia Nitrogen as N 10	mg/l			Report	1/year	24-Hour Composite ³
Phosphorus, Total	mg/l			Report	1/quarter	24-Hour Composite ³
Total Kjedahl Nitrogen, as N 11	mg/l			Report	1/year	24-Hour Composite ³
Total Nitrate, as N 11	mg/l			Report	1/year	24-Hour Composite ³
Total Nitrite, as N 11	mg/l			Report	1/year	24-Hour Composite ³
Total Aluminum 10	mg/l			Report	1/year	24-Hour Composite ³
Total Cadmium 10	mg/l			Report	1/year	24-Hour Composite ³
Total Chromium 10	mg/l			Report	1/year	24-Hour Composite ³
Total Copper 10	mg/l			Report	1/year	24-Hour Composite ³
Total Lead 10	mg/l			Report	1/year	24-Hour Composite ³
Total Nickel ¹⁰	mg/l			Report	1/year	24-Hour Composite ³
Total Zinc ¹⁰	mg/l			Report	1/year	24-Hour Composite ³

Explanation to Superscripts to Part I.A.:

- (1) Flow is an annual average limit and is the design flow rate for the wastewater treatment facility as reported with the notification requirements for permit coverage (see Part III.M). The average monthly value is computed as a rolling average. The first value will be calculated using the monthly average flow for the first full month ending after the effective date of the permit and the eleven previous monthly average flows. Each subsequent month's Discharge Monitoring Report (DMR) will report the annual average flow for the previous 12 months. Report maximum and minimum daily rates and total flow for each operating date.
- (2) Sampling required for influent. The influent concentrations of both BOD₅ (or CBOD₅) and TSS shall be monitored twice per month (2/month), using a 24-hour composite sample, and the results used to calculate percent removal.
- (3) A 24-hour composite sample will consist of at least twenty-four (24) grab samples taken during a 24 hour consecutive period (e.g. 7:00 am Monday to 7:00am Tuesday). For a facility with no flow during the 24-hour consecutive period, the composite sample consists of grab samples of equal aliquots taken during the active flow period. The monthly DMR should explain the composite sampling method.
- (4) State certification requirements.
- (5) Fecal Coliform monitoring shall be conducted concurrently with the TRC sampling required in this permit. The average monthly value shall be determined by calculating the geometric mean and the result reported.
 - A permittee with written authorization from EPA and the MADEP to allow seasonal disinfection shall monitor Fecal Coliform during the period April 1 to October 31 and during the period when the chlorination system is operational.
- (6) The Total Residual Chlorine (TRC) concentration limits are a function of the water quality criteria and the facility's dilution factor and can be found in Table A of this Part. The dilution factor and applicable chlorine limits will be approved by EPA and MADEP during review of the facilities' Notice of Intent. The permittee will be provided with these limits when notified of permit coverage.
 - All final effluent total residual chlorine monitoring results for the month must be included as an attachment to the monthly Discharge Monitoring Report. Total Residual Chlorine shall be tested using any one of the following three methods listed below: in a. through c.:
 - a. DPD spectrophotometric (colorimetric). EPA no. 330.5 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl G.
 - b. DPD titrimetric (ferrous titrimetric). EPA no. 330.4 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl F.
 - c. Amperometric titration. EPA no. 330.1 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl D.

Facilities utilizing an alternative disinfection method to chlorination, such as Ultraviolet light, shall report "no discharge" for the TRC parameter and the disinfection method in use on the monthly DMR report.

A permittee with written authorization from EPA and the MADEP to allow seasonal disinfection during the period April 1 to October 31, monitoring for TRC is restricted to this period. During the remainder of the year, "no discharge" for the TRC parameter on the monthly DMR report. The permittee shall monitor for TRC when the chlorination process is operational.

(7) LC₅₀ (lethal concentration 50 percent) is the concentration of wastewater (effluent) causing mortality to 50

- percent of the test organisms. The 100% limit is defined as a sample which is composed of 100% effluent with no dilution water. Therefore, a 100% limit means that a sample of 100% effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is considered to be a maximum daily limit.
- (8) The permittee shall conduct **freshwater acute** toxicity tests (48 hour) once per year to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test the Daphnid, <u>Ceriodaphnia dubia</u> in accordance with the test procedures and protocols specified in **Attachment A** (Freshwater Acute Toxicity Test Procedure and Protocol, dated December 1995) of this permit. Toxicity test samples shall be collected and the tests completed during the quarter ending September 30 th. The test results shall be submitted by October 15 th.
- (9) If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment A Section IV.**, **DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment A**, EPA-New England has developed a <u>Self-Implementing Alternative Dilution Water Guidance</u> document (called "Dilution Water Guidance") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Dilution Water Guidance is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment A**. The Dilution Water Guidance has been sent to all permittees with their annual set of DMRs and <u>Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this Dilution Water Guidance will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment A**.</u>
- (10) For each Whole Effluent Toxicity test, the permittee shall report on the appropriate Discharge Monitoring Report (DMR) the concentrations of the Ammonia Nitrogen as Nitrogen, Hardness, Total Organic Carbon; and Total Aluminum, Cadmium, Chromium, Copper, Lead, Nickel and Zinc found in the 100 percent-effluent sample. All these aforementioned chemical parameters shall be determined to at least the Minimum Quantification Level as stated in **Attachment A, Section VI. Chemical Analysis**. Also, the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.
- (11) The sample for these parameters shall be collected at the same time the Whole Effluent Toxicity samples are collected and analysis shall be performed in conjunction with the WET chemical constituent analysis.
- (12) All required effluent samples shall be collected at the point specified in the permit. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR §136.
- (13) The CBOD₅ limitations apply in lieu of the BOD₅ limitations if requested in the permittee's Notice Of Intent (NOI) submission and approved by EPA and MADEP.
- (14) The Fecal Coliform limitations for Class A waters.

Table A. Total Residual Chlorine (TRC) Effluent Limitations for Discharges to Freshwaters based on the Dilution Factor. The Average Monthly and Maximum Daily TRC limits are shown below according to the Dilution Factor.

Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)
50:1	0.55/0.95	64:1	0.70/1.0	78:1	0.86/1.0
51:1	0.56/0.97	65:1	0.72/1.0	79:1	0.87/1.0
52:1	0.57/0.99	66:1	0.73/1.0	80:1	0.88/1.0
53:1	0.58/1.0	67:1	0.74/1.0	81:1	0.89/1.0
54:1	0.59/1.0	68:1	0.75/1.0	82:1	0.90/1.0
55:1	0.60/1.0	69:1	0.76/1.0	83:1	0.91/1.0
56:1	0.62/1.0	70:1	0.77/1.0	84:1	0.92/1.0
57:1	0.63/1.0	71:1	0.78/1.0	85:1	0.94/1.0
58:1	0.64/1.0	72:1	0.79/1.0	86:1	0.95/1.0
59:1	0.65/1.0	73:1	0.80/1.0	87:1	0.96/1.0
60:1	0.66/1.0	74:1	0.81/1.0	88:1	0.97/1.0
61:1	0.67/1.0	75:1	0.83/1.0	89:1	0.98/1.0
62:1	0.68/1.0	76:1	0.84/1.0	90:1	0.99/1.0
63:1	0.69/1.0	77:1	0.85/1.0	≥91:1	1.0/1.0

Part I.B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for Minor facilities discharging to Marine waters with Dilution Factors at least 50:1

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at the end of all processes, including disinfection and dechlorination or at an alternative representative location, approved by the EPA and MADEP.

Effluent Characteristic	<u>Units</u>	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average <u>Weekly</u>	Maximum <u>Daily</u>	Measurement <u>Frequency</u>	Sample Type 12
Flow 1	MGD	Limit		Report	Continuous	Recorder
BOD ₅	mg/l	30	45	Report ⁴	1/Week ²	24-Hour Composite ³
BOD ₅	lbs/day	(See State Per	mit Condition	I.D.1.c)		
CBOD ₅ ¹³	mg/l	25	40	Report ⁴	1/Week ²	24-Hour Composite ³
CBOD ₅ ¹³	lbs/day	(See State Permit Condition I.D.1.c)				
TSS	mg/l	30	45	Report ⁴	1/Week ²	24-Hour Composite ³
TSS	lbs/day	(See State Per	mit Condition	I.D.1.c)		
рН	Standard Units	6.0 to 9.0			5/Week	Grab
Fecal Coliform Bacteria 4,5	cfu/100 ml	200 14		400 14	1/Week	Grab
Fecal Coliform Bacteria 4,5	cfu/100 ml	14 15		43 15	1/Week	Grab
Fecal Coliform Bacteria 4,5	cfu/100 ml	88 16		260 16	1/Week	Grab
Total Residual Chlorine 4,6	mg/l	See Table B		See Table B	5/Week	Grab
Whole Effluent Toxicity, LC_{50}^{7} Dilution Factor $\leq 100:1$	percent			100	1/year ^{8, 9}	24-Hour Composite ³
Whole Effluent Toxicity, LC ₅₀ ⁷ Dilution Factor >100:1 and < 1000	percent			≥50	1/year ^{8, 9}	24-Hour Composite ³

Part I.B. - Continued

	<u>Units</u>	Discharge Limitation		Monitoring Requirement		
Effluent Characteristic						_
		Average <u>Monthly</u>	Average <u>Weekly</u>	Maximum <u>Daily</u>	Measurement Frequency	Sample Type 12
Total Organic Carbon 10	mg/l			Report	1/year	24-Hour Composite ³
Total Ammonia Nitrogen as N 10	mg/l			Report	1/year	24-Hour Composite ³
Total Kjedahl Nitrogen, as N 11	mg/l			Report	1/year	24-Hour Composite ³
Total Nitrate, as N 11	mg/l			Report	1/year	24-Hour Composite ³
Total Nitrite, as N 11	mg/l			Report	1/year	24-Hour Composite ³
Total Aluminum 10	mg/l			Report	1/year	24-Hour Composite ³
Total Cadmium 10	mg/l			Report	1/year	24-Hour Composite ³
Total Chromium 10	mg/l			Report	1/year	24-Hour Composite ³
Total Copper 10	mg/l			Report	1/year	24-Hour Composite ³
Total Lead 10	mg/l			Report	1/year	24-Hour Composite ³
Total Nickel ¹⁰	mg/l			Report	1/year	24-Hour Composite ³
Total Zinc 10	mg/l			Report	1/year	24-Hour Composite ³

Explanation to Superscripts to Part I.B.:

- (1) Flow is an annual average limit and is the design flow rate for the wastewater treatment facility as reported with the notification requirements for permit coverage (see Part III.M). The average monthly value is computed as a rolling average. The first value will be calculated using the monthly average flow for the first full month ending after the effective date of the permit and the eleven previous monthly average flows. Each subsequent month's DMR will report the annual average flow for the previous 12 months. Report maximum and minimum daily rates and total flow for each operating date.
- (2) Sampling required for influent. The influent concentrations of both BOD₅ (or CBOD₅) and TSS shall be monitored twice per month (2/month), using a 24-hour composite sample, and the results used to calculate percent removal.
- (3) A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during 24 hour consecutive period (e.g. 7:00 am Monday to 7:00am Tuesday). For a facility with no flow during the 24-hour consecutive period, the composite sample consists of grab samples of equal aliquots taken during the active flow period. The monthly DMR should explain the composite sampling method.
- (4) State certification requirements.
- (5) Fecal Coliform monitoring shall be conducted concurrently with the TRC sampling required in this permit. The average monthly value shall be determined by calculating the geometric mean and the result reported.
 - A permittee with written authorization from EPA and the MADEP to allow seasonal disinfection shall monitor Fecal Coliform during the period April 1 to October 31 and during the period when the chlorination system is operational.
- (6) The Total Residual Chlorine (TRC) concentration limits are a function of the water quality criteria and the facility's dilution factor and can be found in Table B of this Part. The dilution factor and applicable chlorine limits will be approved by EPA and MADEP during review of the facilities' Notice of Intent. The permittee will be provided with these limits when notified of permit coverage.
 - All final effluent total residual chlorine monitoring results must be included as an attachment to the monthly Discharge Monitoring Report. Total Residual Chlorine shall be tested using any one of the following three methods listed below: in a. through c.:
 - a. DPD spectrophotometric (colorimetric). EPA no. 330.5 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl G.
 - b. DPD titrimetric (ferrous titrimetric). EPA no. 330.4 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl F.
 - c. Amperometric titration. EPA no. 330.1 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136] , no. 4500-Cl D.

Facilities utilizing an alternative disinfection method to chlorination, such as Ultraviolet light, shall report "no discharge" for the TRC parameter and the disinfection method in use on the DMR report.

A permittee with written authorization from EPA and the MADEP to allow seasonal disinfection during the period April 1 to October 31, monitoring for TRC is restricted to this period. During the remainder of the year, "no discharge" for the TRC parameter on the monthly DMR report. The permittee shall monitor for TRC when the chlorination process is operational.

- (7) LC50 (lethal concentration 50 percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms. The "≥100% limit" is defined as a sample which is composed of 100% effluent, with no dilution water. Therefore, a 100% limit means that a sample of 100% effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is considered to be a maximum daily limit.
- (8) The permittee shall conduct **marine acute** toxicity tests (48 hour) once per year to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test the Mysid shrimp (Mysidopsis bahia) and Inland Silverside, (Menidia beryllina) in accordance with the test procedures and protocols specified in **Attachment B** (Marine Acute Toxicity Test Procedure and Protocol dated September 1996) of this permit. Toxicity test samples shall be collected any date during the quarter ending September 30 th. The test results shall be submitted by October 15 th.
- (9) If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment B Section IV.**, **DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment B**, EPA-New England has developed a <u>Self-Implementing Alternative Dilution Water Guidance</u> document (called "Dilution Water Guidance") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Dilution Water Guidance is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment B**. The Dilution Water Guidance has been sent to all permittees with their annual set of DMRs and <u>Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this Guidance Document will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment B**.</u>
- (10) For each Whole Effluent Toxicity test, the permittee shall report on the appropriate Discharge Monitoring Report (DMR) the concentrations of the Ammonia Nitrogen as Nitrogen, Total Organic Carbon; and Total Aluminum, Cadmium, Chromium, Copper, Lead, Nickel and Zinc found in the 100 percent-effluent sample. All these aforementioned chemical parameters shall be determined to at least the Minimum Quantification Level in **Attachment B, Section VI. Chemical Analysis**. Also, the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.
- (11) The sample for these parameters shall be collected at the same time the Whole Effluent Toxicity samples are collected and analysis shall be performed in conjunction with the WET chemical constituent analysis.
- (12) All required effluent samples shall be collected at the point specified in the permit. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR §136.
- (13) The CBOD₅ limitations apply in lieu of the BOD₅ limitations if requested in the permittee's Notice Of Intent (NOI) submission and approved by EPA and MADEP.
- (14) The Fecal Coliform limitations for waters not designated for shellfish harvesting.
- (15) The Fecal Coliform limitations for Class SA waters approved for open shellfish harvesting.

Table B. Total Residual Chlorine (TRC) Effluent Limitations for Discharges to Marine waters based on the Dilution Factor. The Average Monthly and Maximum Daily TRC limits are shown below according to the Dilution Factor.

Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)
50:1	0.38/0.65	78:1	0.59/1.0	106:1	0.80/1.0
51:1	0.38/0.66	79:1	0.59/1.0	107:1	0.80/1.0
52:1	0.39/.068	80:1	0.60/1.0	108:1	0.81/1.0
53:1	0.40/0.69	81:1	0.61/1.0	109:1	0.82/1.0
54:1	0.41/0.70	82:1	0.62/1.0	110:1	0.82/1.0
55:1	0.41/0.72	83:1	0.62/1.0	111:1	0.83/1.0
56:1	0.42/0.73	84:1	0.63/1.0	112:1	0.841.0
57:1	0.43/0.74	85:1	0.64/1.0	113:1	0.85/1.0
58:1	0.44/0.75	86:1	0.65/1.0	114:1	0.86/1.0
59:1	0.44/0.77	87:1	0.65/1.0	115:1	0.86/1.0
60:1	0.45/0.78	88:1	0.66/1.0	116:1	0.87/1.0
61:1	0.46/0.79	89:1	0.67/1.0	117:1	0.88/1.0
62:1	0.47/0.81	90:1	0.68/1.0	118:1	0.89/1.0
63:1	0.47/0.82	91:1	0.68/1.0	119:1	0.89/1.0
64:1	0.48/0.83	92:1	0.69/1.0	120:1	0.90/1.0
65:1	0.49/0.85	93:1	0.70/1.0	121:1	0. 91/1.0
66:1	0.50/0.86	94:1	0.71/1.0	122:1	0.92/1.0
67:1	0.50/0.87	95:1	0.71/1.0	123:1	0.92/1.0
68:1	0.51/0.88	96:1	0.72/1.0	124:1	0.93/1.0
69:1	0.52/0.90	97:1	0.73/1.0	125:1	0.94/1.0
70:1	0.53/0.91	98:1	0.74/1.0	126:1	0.94/1.0
71:1	0.53/0.92	99:1	0.74/1.0	127:1	0.95/1.0
72:1	0.54/0.94	100:1	0.75/1.0	128:1	0.96/1.0

Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)
73:1	0.55/0.95	101:1	0.76/1.0	129:1	0.97/1.0
74:1	0.56/0.96	102:1	0.76/1.0	130:1	0.98/1.0
75:1	0.56/0.98	103:1	0.77/1.0	131:1	0.98/1.0
76:1	0.57/0.99	104:1	0.78/1.0	132:1	0.99/1.0
77:1	0.58/1.0	105:1	0.79/1.0	133:1	1.0/1.0

Part I.C. Additional Permit Requirements

- 1. Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part IV. and the following terms and conditions:
 - a. Maintenance Staff: The permittee shall provide adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.
 - b. Preventative Maintenance Program: The permittee shall maintain an ongoing preventative maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges.
 - c. Infiltration/Inflow Control Plan: The permittee shall develop and implement a plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be submitted to EPA and MADEP within six months of the active date of permit coverage and shall describe the permittee's program for preventing I/I-related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and by-passes due to infiltration/inflow. The I/I plan shall include:
 - An ongoing program to identify and remove sources of infiltration and inflow. The program shall include the necessary funding level and the source(s) of funding.
 - An inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts. Priority should be given to removal of public and private inflow sources that are upstream from, and potentially contribute to, known areas of sewer system backups and/or overflows.
 - Identification and prioritization of areas that will provide increased aquifer recharge as the result of reduction/elimination of infiltration and inflow to the system.
 - An educational public outreach program for all aspects of I/I control, particularly private inflow.

Reporting Requirements:

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and the MADEP annually, by the anniversary date of the active date of

permit coverage. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year;
- Expenditures for any I/I-related maintenance activities and corrective actions taken during the previous year;
- A map with areas identified for I/I-related investigation/action in the coming year;
- A calculation of the annual average I/I, and the maximum monthly I/I for the reporting year; and,
- A report of any I/I-related corrective actions taken as a result of unauthorized discharges reported pursuant to 314 CMR 3.19(20) and reported pursuant to the <u>Unauthorized Discharges</u> section of this permit;
- d. Alternate Power Source: In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to sufficiently operate its treatment works (as defined at 40 CFR §122.2).
- 2. Within 12 months of the active date of general permit coverage, facilities with chlorination systems shall install a flow-paced chlorination system or continuously monitor TRC to determine compliance with the TRC effluent limitations.
- 3. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection or interruptions or malfunctions of the dechlorination system that may have resulted in excessive levels of chlorine in the final effluent shall be reported as an attachment to the monthly DMRs. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.

Part I.D. Massachusetts State Permit Conditions

- 1. All Massachusetts permittees shall comply with the following conditions that are included as State Certification requirements.
 - a. This Discharge Permit (Permit) is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP) under federal and state law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MADEP pursuant to M.G.L. Chap.21, §43.
 - b. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.

- c. The Average Monthly, Average Weekly, and Maximum Daily BOD₅ (or CBOD₅) and TSS mass loading limits apply to each discharge. The loading limits are calculated for each facility using the equation: mass limit (lbs/day) = concentration limit (mg/L) X facility design flow (mgd) X 8.34 (conversion factor). Example calculations are found in Attachment C of the Fact Sheet.
- d. Discharges into Massachusetts Class A or SA water require a State antidegradation review. The MADEP may deny general permit coverage, for these discharges, following the antidegradation review.

Part II. New Hampshire General Permit No. NHG580000 for POTWs and Sanitary Wastewater Facilities Discharging to Freshwaters and Marine Waters with Dilution Factors at Least 50:1

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C.§§ 1251 et seq.; the "CWA"), owners and operators of POTWs and other treatment works that treat domestic sewage and discharge treated sanitary wastewater located in New Hampshire are authorized to discharge to all waters, unless otherwise restricted by the New Hampshire water quality standards, 50 RSA § 485-A:8 and the N.H. Code of Administrative Rules Env-Ws 1700-1709 (December 1999), in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective when issued.

This permit and the authorization to discharge expire at midnight, five years from the effective date, which is the date specified in the notice of final issuance for the general permit, published in the <u>Federal Register</u>.

Signed this day of

DRAFT

Linda M. Murphy
Director, Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA 02114

Part II.A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Discharges to Freshwater with a Dilution Factor at least 50:1.)

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated wastewater effluent from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below in Tables A and B in accordance with the type of secondary treatment system. The explanation of superscripts to Part II.A. follows Table B. Samples taken in compliance with the monitoring requirements specified below shall be taken at the end of all processes, including disinfection and dechlorination or at an alternative representative location, approved by the EPA and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD).

Table A. Effluent Limits

Effluent Characteristic	Units	Discharge Limitation			
		Average Monthly	Average Weekly	Maximum Daily	
Flow	mgd	report		report	
BOD ₅	mg/l	30	45	50 (18)	
or CBOD ₅ (2, 3)	mg/l	25	40	45 (18)	
BOD ₅ or CBOD ₅ (2)	lbs/day	limit (17)	limit (17)	limit (17, 18)	
TSS (3)	mg/l	30	45	50 (18)	
TSS	lbs/day	limit (17)	limit (17)	limit (17, 18)	
рН	standard units	6.0 to 9.0			
Total Residual Chlorine ⁽⁴⁾	mg/l	See Table C in Part II.A.		See Table C in Part II.A.	
Escherichia coli (5), designated beach area (6)	colonies/100 ml	47 (7, 18))		88 (18)	
Escherichia Coli (5), not designated beach area (6)	colonies/100ml	126 (7,18)		406 (18)	
Whole Effluent Toxicity, LC50 (9,10)					
Dilution Factor ≤100:1	percent			100 (11)	
Dilution Factor >100:1	percent			≥50 ⁽¹³⁾	
Total Ammonia Nitrogen, as N (16)	mg/l			report	

Part II.A. Table A. Effluent Limits - Continued

Hardness (as CaCO ₃) ⁽¹⁶⁾	mg/l	 	report
Total Aluminum (16)	mg/l	 	report
Total Cadmium (16)	mg/l	 	report
Total Chromium (16)	mg/l	 	report
Total Copper (16)	mg/l	 	report
Total Nickel (16)	mg/l	 	report
Total Lead (16)	mg/l	 	report
Total Zinc (16)	mg/l	 	report

Table B. Monitoring Requirements for Secondary Treatment Systems Discharging to Freshwater with a Dilution Factor at least 50:1. The Daily measurement frequency means once per day (seven days per week).

Systems other than
Sand Filters and Lagoons
Sand Filters
Lagoons

Effluent Characteristic	Measurement Frequency	Sample Type	Measure- ment Frequency	Sample Type	Measurement Frequency	Sample Type
Flow	Continuous	Recorder ¹	Continuou s	Recorder ¹	Continuous	Recorder ¹
BOD ₅ or CBOD ₅ ⁽³⁾	2/week	24-hour composite	2/month	grab	1/week	grab
TSS (3)	2/week	24-hour composite	2/month	grab	1/week	grab
pН	Daily	grab	3/week	grab	Daily	grab
Total Residual Chlorine	Daily	grab	Daily	grab	Daily	grab
Escherichia Coli	3/week (8)	grab	1/week (8)	grab	2/week (8)	grab
Whole Effluent Toxicity						
Major Facilities Dilution Factor ≤100:1	4/year	24-hour composite	4/year	grab	4/year (12)	grab
Dilution Factor >100:1	2/year ⁽¹⁴⁾	24-hour composite	2/year ⁽¹⁴⁾	grab	2/year (14)	grab
Minor Facilities Dilution Factor ≤1000:1	1/year	24-hour composite	1/year	grab	1/year (15)	grab

Effluent characteristic	Monitoring Requirement for all Treatment Systems
Total Ammonia Nitrogen, as N (16)	see WET frequency & sample type
Hardness (as CaCO ₃) ⁽¹⁶⁾	see WET frequency & sample type
Total Aluminum (16)	see WET frequency & sample type
Total Cadmium (16)	see WET frequency & sample type
Total Chromium (16)	see WET frequency & sample type
Total Copper (16)	see WET frequency & sample type
Total Nickel (16)	see WET frequency & sample type
Total Lead (16)	see WET frequency & sample type
Total Zinc (16)	see WET frequency & sample type

Explanation of Superscripts to Part II.A., Tables A and B

- (1) The effluent flow shall be continuously measured and recorded using a flow meter and totalizer.
- (2) The CBOD₅ limitations apply in lieu of the BOD₅ limitations if requested in the permittee's Notice Of Intent (NOI) submission and approved by EPA and NHDES-WD.
- (3) The influent concentrations of BOD₅ (or CBOD₅) and TSS shall be monitored twice per month (2/month), preferably using a 24-Hour Composite sample, and the results used to calculate percent removal.
- (4) The Total Residual Chlorine (TRC) concentration limits are a function of the water quality criteria and the facility's dilution factor and can be found in Table C of this Part (Part II.A.). The dilution factor and applicable chlorine limits will be determined by NHDES-WD and provided to the permittee after the permittee has requested the information during preparation of the NOI. The TRC limits will be confirmed by EPA during review of the facilities' NOI for permit coverage.

Total Residual Chlorine shall be tested using any one of the following three methods listed below in a. through c.:

- a. DPD spectrophotometric (colorimetric). EPA no. 330.5 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl G.
- b. DPD titrimetric (ferrous titrimetric). EPA no. 330.4 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl F.
- c. Amperometric titration. EPA no. 330.1 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl D.

Facilities utilizing alternative disinfection methods to chlorination, such as Ultraviolet light, shall report "no discharge" for the TRC parameter and the disinfection method in use on the monthly DMR report.

- (5) Escherichia coli shall be tested using test method 1103.1 found in <u>Escherichia coli (E. coli) in Water by</u> Membrane Filtration Using membrane-Thermotolerant Escherichia coli Agar (mTec), EPA-821-R-02-020.
- (6) The permittee must consult with NHDES-WD to determine whether or not the discharge is to a designated beach area, and submit this determination as part of the NOI.

- (7) The average monthly value for <u>Escherichia coli</u> shall be determined by calculating the geometric mean and the result reported.
- (8) Bacteria monitoring shall be conducted concurrently with the TRC sampling required in this permit.
- (9) Facilities authorized to discharge to freshwater under this general permit (except those minor facilities with dilution factors greater than 1,000:1) shall conduct **freshwater acute** toxicity tests (48 hour), at the frequency specified in the Effluent Limitations and Monitoring Requirements table (Part II.A., Table B), to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test the Daphnid, <u>Ceriodaphnia dubia</u>, and the fathead minnow, <u>Pimephales promelas</u> in accordance with the test procedures and protocols specified in **Attachment A** (Freshwater Acute Toxicity Test Procedure and Protocol, dated December 1995) of this permit.

After completing four (4) consecutive WET tests which demonstrate compliance with the WET permit limits, the permittee may request to have the WET testing frequency requirements reduced (to not less than once per year) for the remainder of the permit term as provided in Part II. D (Whole Effluent Toxicity Test Frequency Adjustment). The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment A Section IV.**, **DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required **in Attachment A**, EPA-New England has developed a <u>Self-Implementing Alternative Dilution Water Guidance</u> document (called "Dilution Water Guidance") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Dilution Water Guidance document is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment A**. The Dilution Water Guidance has been sent to all permittees with their annual set of DMRs and <u>Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this Dilution Water Guidance will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment A**.</u>

- (10) LC₅₀ (lethal concentration 50 percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms.
- (11) The "100 % limit" is defined as a sample which is composed of 100 % effluent with no dilution water. Therefore, a 100 % limit means that a sample of 100 % effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is a maximum daily limit.
- (12) For major facilities with dilution factors less than or equal to 100:1, conducting quarterly (4/year) toxicity tests, the samples shall be collected and tests completed during the calendar quarters ending March 31st, June 30th, September 30th and December 31st each year. Toxicity test results are to be submitted by the 15th day of the month following the end of the quarter sampled. For example, test results for the calendar quarter January through March are due by April 15th.
- (13) The " ≥ 50 % limit" is defined as a sample which is composed of 50 % effluent with 50% dilution water. Therefore, a ≥ 50 % limit means that a sample of 50% effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is a maximum daily limit.
- (14) For major facilities with dilution factors greater than 100:1, conducting two toxicity tests per year, the samples shall be collected and tests completed during the calendar quarters ending March 31st and September 30th each year. Toxicity test results are to be submitted by the 15th day of the month following the end of the quarter sampled. For example, test results for the calendar quarter January through March are due by April 15th.

- (15) For minor facilities with dilution factors less than or equal to 1,000:1, conducting an annual (1/year) toxicity test, the samples shall be collected and the tests completed during the quarter ending September 30th. The test results shall be submitted by October 15th.
- (16) For each Whole Effluent Toxicity test, the permittee shall report on the appropriate Discharge Monitoring Report (DMR) form the concentrations of the Ammonia Nitrogen as Nitrogen, Hardness; and Total Aluminum, Cadmium, Chromium, Copper, Lead, Nickel and Zinc found in the 100 percent effluent sample. All these aforementioned chemical parameters shall be determined to at least the Minimum Quantification Level listed in **Attachment A, Section VI. Chemical Analysis**. Also, the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.
- (17) The Average Monthly, Average Weekly, and Maximum Daily BOD₅ (or CBOD₅) and TSS mass loading limits apply to each discharge. The loading limits are calculated for each facility using the equation: mass limit (lbs/day) = concentration limit (mg/L) X facility design flow (mgd) X 8.34 (conversion factor). Example calculations are found in Attachment C of the Fact Sheet.
- (18) State Certification requirement.

Table C. Total Residual Chlorine (TRC) Effluent Limitations for Discharges to Freshwater based on the Dilution Factor. The Average Monthly and Maximum Daily TRC limits are shown below according to the Dilution Factor.

Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)
50:1	0.55/0.95	64:1	0.70/1.0	78:1	0.86/1.0
51:1	0.56/0.97	65:1	0.72/1.0	79:1	0.87/1.0
52:1	0.57/0.99	66:1	0.73/1.0	80:1	0.88/1.0
53:1	0.58/1.0	67:1	0.74/1.0	81:1	0.89/1.0
54:1	0.59/1.0	68:1	0.75/1.0	82:1	0.90/1.0
55:1	0.60/1.0	69:1	0.76/1.0	83:1	0.91/1.0
56:1	0.62/1.0	70:1	0.77/1.0	84:1	0.92/1.0
57:1	0.63/1.0	71:1	0.78/1.0	85:1	0.94/1.0
58:1	0.64/1.0	72:1	0.79/1.0	86:1	0.95/1.0
59:1	0.65/1.0	73:1	0.80/1.0	87:1	0.96/1.0
60:1	0.66/1.0	74:1	0.81/1.0	88:1	0.97/1.0
61:1	0.67/1.0	75:1	0.83/1.0	89:1	0.98/1.0
62:1	0.68/1.0	76:1	0.84/1.0	90:1	0.99/1.0
63:1	0.69/1.0	77:1	0.85/1.0	≥91:1	1.0/1.0

Part II.B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Discharges to Marine Water with a Dilution Factor at least 50:1.)

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated wastewater effluent from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below in Tables A and B in accordance with the type of secondary treatment system. The explanation of superscripts to Part II.B. follows Table B. Samples taken in compliance with the monitoring requirements specified below shall be taken at the end of all processes, including disinfection and dechlorination or at an alternative representative location, approved by the EPA and the NHDES-WD.

Table A. Effluent Limitations

Effluent Characteristic	Units	Discharge Limitation		
		Average Monthly	Average Weekly	Maximum Daily
Flow	mgd	report		report
BOD ₅	mg/l	30	45	50 (21)
or CBOD ₅ (2, 3)	mg/l	25	40	45 (21)
BOD ₅ or CBOD ₅ ⁽²⁾	lbs/day	limit (20)	limit (20)	limit (20, 21)
TSS (3)	mg/l	30	45	50 (20)
TSS	lbs/day	limit (20)	limit (20)	limit (20, 21)
рН	standard units	6.0 to 9.0		
Total Residual Chlorine (4)	mg/l	See Table C in Part II.B.		See Table C in Part II.B.
Total Coliform (5,6)	colonies/100 ml	70 (8, 21)		report (21)
or Fecal Coliform (5,7)	colonies/100 ml	14 (8, 21)		report (21)
Enterococci (11) in waters utilized for swimming purposes (12)	colonies/100 ml	35 (8, 21)		104 (21)
Enterococci (11) in waters not utilized for swimming purposes (12)	colonies/100ml	report (21)		report (21)
Whole Effluent Toxicity, LC50 (13, 14)				
Dilution Factor ≤100:1	percent			100 (15)
Dilution Factor >100:1	percent			≥50 ⁽¹⁵⁾
Total Ammonia Nitrogen, as N ⁽¹⁹⁾	mg/l			report

Part II.B. Table A. Effluent Limitations - Continued

Total Aluminum (19)	mg/l	 	report
Total Cadmium (19)	mg/l	 	report
Total Chromium (19)	mg/l	 	report
Total Copper (19)	mg/l	 	report
Total Nickel (19)	mg/l	 	report
Total Lead (19)	mg/l	 	report
Total Zinc (19)	mg/l	 	report

Table B. Monitoring Requirements for Secondary Treatment Systems Discharging to Marine Water With a Dilution Factor of at Least to 50:1. The Daily measurement frequency means once per day (seven days per week).

Systems other than
Sand Filters and Lagoons
Sand Filters
Lagoons

Effluent Characteristic	Measurement Frequency	Sample Type	Measurement Frequency	Sample Type	Measurement Frequency	Sample Type
Flow	Continuous	Recorder ¹	Continuous	Recorder ¹	Continuous	Recorder
BOD ₅ or CBOD ₅ ⁽³⁾	2/week	24-hour composite	2/month	grab	1/week	grab
TSS (3)	2/week	24-hour composite	2/month	grab	1/week	grab
pН	Daily	grab	3/week	grab	Daily	grab
Total Residual Chlorine	2/day	grab	2/day	grab	2/day	grab
Total Coliform (5,6) or Fecal Coliform (5,7)	5/week (minor) or daily (major) (9, 10)	grab	5/week (minor) or daily (major) (9, 10)	grab	5/week (minor) or daily (major) (9, 10)	grab
Enterococci (11) in waters utilized for swimming purposes (12)	5/week (minor) or daily (major) (9, 10)	grab	5/week (minor) or daily (major) (9, 10)	grab	5/week (minor) or daily (major) (9, 10)	grab
Enterococci (11) in waters not utilized for swimming purposes (12)	1/week (9)	grab	1/week (9)	grab	1/week ⁽⁹⁾	grab

Table B. Monitoring Requirements - Continued

Whole Effluent Toxicity								
Major Facilities Dilution Factor ≤100:1	4/year (16)	24-hour composit	æ	4/year (16)	grab	4/year ⁽¹⁶⁾	grab	
≥ 100:1	2/year ⁽¹⁷⁾	24-hour composit	æ	2/year (17)	grab	2/year (17)	grab	
Whole Effluent Toxicity	1/year (18)	24-hour composit	æ	1/year (18)	grab	1/year ⁽¹⁸⁾	grab	
Minor Facilities Dilution Factor ≤1,000:1								
Effluent characteristi	ic		Mo	onitoring Requireme	nt for all Treatm	ent Systems		
Total Ammonia Nitr	ogen, as N (19)		see	WET frequency &	sample type			
Total Aluminum (19)			see	WET frequency &	sample type			
Total Cadmium (19)			see	WET frequency &	sample type			
Total Chromium (19)			see	WET frequency &	sample type			
Total Copper (19)			see	WET frequency &	sample type			
40								Ī

Explanation of Superscripts to Part II.B., Tables A and B

Total Nickel (19)

Total Lead (19)

Total Zinc (19)

- (1) The effluent flow shall be continuously measured and recorded using a flow meter and totalizer.
- (2) The CBOD₅ limitations apply in lieu of the BOD₅ limitations if requested in the permittee's Notice Of Intent (NOI) submission and approved by EPA and NHDES-WD.

see WET frequency & sample type

see WET frequency & sample type

see WET frequency & sample type

- (3) The influent concentrations of BOD₅ (or CBOD₅) and TSS shall be monitored twice per month (2/month), preferably using a 24-Hour Composite sample, and the results used to calculate percent removal.
- (4) The Total Residual Chlorine (TRC) concentration limits are a function of the water quality criteria and the facility's dilution factor and can be found in Table C of this Part (Part II.B.). The dilution factor and applicable chlorine limits will be determined by NHDES-WD and provided to the permittee after the permittee has requested the information during preparation of the NOI. The TRC limits will be confirmed by EPA during review of the facilities' NOI for permit coverage.

Total Residual Chlorine shall be tested using any one of the following three methods listed below in a. through c.:

- a. DPD spectrophotometric (colorimetric). EPA no. 330.5 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl G.
- b. DPD titrimetric (ferrous titrimetric). EPA no. 330.4 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-C1 F.
- c. Amperometric titration. EPA no. 330.1 or <u>Standard Methods</u> [19th or subsequent Edition(s), as approved in 40 CFR Part 136], no. 4500-Cl D.

Facilities utilizing alternative disinfection methods to chlorination, such as Ultraviolet light, shall report "no discharge" for the TRC parameter and the disinfection method in use on the monthly DMR report.

- (5) The permittee is required to meet either Total Coliform or Fecal Coliform limitations for tidal water used for the growing or taking of shellfish. The permittee is to indicate which indicator organism it chooses for its permit in the NOI.
- (6) Total Coliform shall be tested using test method 9221 B or 9222(B+B.5 c) found in <u>Standard Methods for the Examination of Water and Wastewater</u>, 18th or subsequent Edition(s), as approved in 40 CFR Part 136.

The average monthly value for Total Coliform bacteria shall be calculated and reported as the geometric mean. Additionally, over a monthly period, not more than 10 percent of the collected samples shall exceed a Most Probable Number (MPN) of 230 colonies per 100 ml for a 5-tube decimal dilution test. The permittee shall report the percentage of collected samples over a monthly period that exceeds a MPN of 230 colonies per 100 ml for a 5-tube decimal dilution test. For the maximum daily value, the permittee shall report the highest daily value collected over the monthly period. All Total Coliform data collected must be submitted as an attachment with the appropriate monthly Discharge Monitoring Report (DMR).

(7) Fecal Coliform shall be tested using test method 9222 D or 9221 C E found in <u>Standard Methods for the</u> Examination of Water and Wastewater, 18th or subsequent Edition(s), as approved in 40 CFR Part 136.

The average monthly value for Fecal Coliform bacteria shall be calculated and reported as the geometric mean. Additionally, over a monthly period, not more than 10 percent of the collected samples shall exceed a Most Probable Number (MPN) of 43 colonies per 100 ml for a 5-tube decimal dilution test. The permittee shall report the percentage of collected samples over a monthly period that exceeds a MPN of 43 colonies per 100 ml for a 5-tube decimal dilution test. For the maximum daily value, the permittee shall report the highest daily value collected over the monthly period. All Fecal Coliform data collected must be submitted with the appropriate monthly Discharge Monitoring Report (DMRs).

- (8) The average monthly values for bacteria parameters (such as Total Coliform, Fecal Coliform, and Enterococci) shall be determined by calculating the geometric mean and the results reported.
- (9) Bacteria monitoring shall be conducted concurrently with the TRC sampling required in this permit.
- (10) The monitoring frequency requirement for bacteria parameters (such as Total Coliform, Fecal Coliform, and Enterococci) for minor facilities is five times per week (5/week) for minor facilities and daily (1/day) for major facilities.
- (11) Enterococci shall be tested using the test method ASTM Enterococci Method D6503-99 using IDEXX EnterolertTM where ASTM stands for American Society for Testing and Materials.

Alternate analytical methods to ASTM Enterococci Method D6503-99 using IDEXX EnterolertTM may be approved by EPA-New England if requested in writing either by the permittee or by NHDES-WD. Such a request should include the technical justification(s) as the basis for requesting this change. Such a request will be considered a minor modification to the permit. In addition, should a method for Enterococci be approved in 40 CFR Part 136, the permittee shall change to that method upon written notice from EPA-New England. Until written notice is received by certified mail from the EPA-New England indicating alternative

method(s) have been approved including any approved in 40 CFR Part 136, the permittee is required to test for Enterococci as required in the respective permit.

- (12) The permittee must consult with NHDES-WD to determine whether or not the tidal water to which it discharges is utilized for swimming purposes. The permittee must submit this determination as part of the NOI.
- (13) Facilities authorized to discharge to marine waters under this general permit shall conduct **marine acute** toxicity tests (48 hour), at the frequency specified in the Effluent Limitations and Monitoring Requirements Table (Part II.B., Table B), to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test the Mysid Shrimp (<u>Mysidopsia bahia</u>) and the Inland Silverside (<u>Menida beryllina</u>) in accordance with the test procedures and protocols specified in **Attachment B.** (Marine Acute Toxicity Test Procedure and Protocol dated September 1996) of this permit.

After completing four (4) consecutive WET tests which demonstrate compliance with the WET permit limits the permittee may request to have the WET testing frequency requirements reduced (to not less than once per year) for the remainder of the permit term as provided in Part II.D. (Whole Effluent Toxicity Test Frequency Adjustment). The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment B Section IV.**, **DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment B**, EPA-New England has developed a <u>Self-Implementing Alternative Dilution Water Guidance</u> document (called "Dilution Water Guidance") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Dilution Water Guidance is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment B**. The Dilution Water Guidance has been sent to all permittees with their annual set of DMRs and <u>Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this Dilution Water Guidance will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment B**.</u>

- (14) LC_{50} (lethal concentration 50 percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms.
- (15) The "100 % limit" is defined as a sample which is composed of 100 % effluent with no dilution water. Therefore, a 100 % limit means that a sample of 100% effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is a maximum daily limit.
 - The " \geq 50 % limit" is defined as a sample which is composed of 50 % effluent with 50% dilution water. Therefore, a \geq 50 % limit means that a sample of 50% effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is a maximum daily limit.
- (16) For major facilities with dilution factors less than or equal to 100:1, conducting quarterly (4/year) toxicity tests, the samples shall be collected and tests completed during the calendar quarters ending March 31st, June 30th, September 30th and December 31st each year. Toxicity test results are to be submitted by the 15th day of the month following the end of the quarter sampled. For example, test results for the calendar quarter January through March are due April 15th.
- (17) For major facilities with dilution factors greater than 100:1, conducting two toxicity tests per year, the samples shall be collected and tests completed during the calendar quarters ending March 31st and September 30th each year. Toxicity test results are to be submitted by the 15th day of the month following the end of the quarter sampled. For example, test results for the calendar quarter January through March are due by April 15th.

- (18) For minor facilities with dilution factors equal to or less than 1,000:1, conducting annual (1/year) toxicity test, the samples shall be collected and the tests completed during the quarter ending September 30th. The test results shall be submitted by October 15th.
- (19) For each Whole Effluent Toxicity test, the permittee shall report on the appropriate Discharge Monitoring Report (DMR) form the concentrations of the Ammonia Nitrogen as Nitrogen; and Total Aluminum, Cadmium, Chromium, Copper, Lead, Nickel and Zinc found in the 100 percent effluent sample. All these aforementioned chemical parameters shall be determined to at least the Minimum Quantification Level in **Attachment B, Section VI. Chemical Analysis**. Also, the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.
- (20) The Average Monthly, Average Weekly, and Maximum Daily BOD₅ (or CBOD₅) and TSS mass loading limits apply to each discharge. The loading limits are calculated for each facility using the equation: mass limit (lbs/day) = concentration limit (mg/L) X facility design flow (mgd) X 8.34 (conversion factor). Example calculations are found in Attachment C of the Fact Sheet.
- (21) State Certification requirement.

Table C. Total Residual Chlorine (TRC) Effluent Limitations for Discharges to Marine Water Based on the Dilution Factor. The Average Monthly and Maximum Daily TRC limits are shown below according to the Dilution Factor.

Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)	Dilution Factor	TRC Limits average monthly/ maximum daily (mg/l)
50:1	0.38/0.65	67:1	0.50/0.87	84:1	0.63/1.0
51:1	0.38/0.66	68:1	0.51/0.88	85:1	0.64/1.0
52:1	0.39/.067	69:1	0.52/0.90	86:1	0.65/1.0
53:1	0.40/0.69	70:1	0.53/0.91	87:1	0.65/1.0
54:1	0.41/0.70	71:1	0.53/0.92	88:1	0.66/1.0
55:1	0.41/0.72	72:1	0.54/0.94	89:1	0.67/1.0
56:1	0.42/0.73	73:1	0.55/0.95	90:1	0.68/1.0
57:1	0.43/0.74	74:1	0.56/0.96	91:1	0.68/1.0
58:1	0.44/0.75	75:1	0.56/0.98	92:1	0.69/1.0
59:1	0.44/0.77	76:1	0.57/0.99	93:1	0.70/1.0
60:1	0.45/0.78	77:1	0.58/1.0	94:1	0.71/1.0
61:1	0.46/0.79	78:1	0.59/1.0	95:1	0.71/1.0
62:1	0.47/0.81	79:1	0.59/1.0	96:1	0.72/1.0
63:1	0.47/0.82	80:1	0.60/1.0	97:1	0.73/1.0
64:1	0.48/0.83	81:1	0.61/1.0	98:1	0.74/1.0
65:1	0.49/0.85	82:1	0.62/1.0	99:1	0.74/1.0

66:1 0.50/0.86 83:1 0.62/1.0 100:1 0.75/1.0

Part II.C. New Hampshire State Conditions

- 1. The permittee shall comply with the following conditions which are included as State Certification requirements.
 - a. Pursuant to State Law NH RSA 485-A:13 and the New Hampshire Code of Administrative Rules, Env-Ws 706.08(b) and Env-Ws 904.08, a 'Sewer Connection Permit' request form shall be submitted to NHDES-WD by a municipality proposing to accept into its POTW (including sewers and interceptors):
 - (1.) Any proposed sewerage, whether public or private;
 - (2.) Any proposed wastewater connection or other discharge in excess of 5,000 gallons per day;
 - (3.) Any proposed wastewater connection or other discharge to a wastewater treatment facility operating in excess of 80% design flow capacity and;
 - (4.) Any proposed connection or other discharge of industrial wastewater, regardless of quality or quantity.

An 'Industrial Discharge Permit Request Application' form shall be submitted to NHDES-WD by a municipality proposing to accept into its POTW (including sewers and interceptors) any new or increased loadings of industrial waste, as defined in RSA 485-A:2, VI.

- b. The permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).
- c. Any modifications of the Permittee's Sewer Use Ordinance, including local limitations on pollutant concentrations, shall be submitted to the NHDES-WD for approval prior to adoption by the permittee.
- d. Within 90 days of the effective date of this permit, the permittee shall submit to NHDES-WD a copy of its current sewer use ordinance and a copy of any other document granting legal authority to issue permits to industries discharging industrial waste to the municipal wastewater treatment plant.
- e. Within 120 days of the effective date of this permit, the permittee shall submit to NHDES-WD a current list of all industries discharging industrial waste to the municipal wastewater treatment plant. At a minimum, the list shall indicate the name and address of each industry, along with the following information: telephone number, contact person, facility description, production quantity, products manufactured, industrial processes used, chemicals used in processes, existing level of pretreatment, and list of existing discharge permits.
- f. Within 270 days of the effective date of this permit, the permittee shall submit to NHDES-WD a copy of discharge permit(s) issued to each industry discharging industrial waste to the municipal wastewater treatment plant. At a minimum, each permit shall contain the following: effective dates; flow and applicable pollutant limits: self-monitoring, reporting, compliance monitoring and inspection provisions; and enforcement criteria. If industrial permitting authority does not exist as of the effective date of this permit, the permittee is requested to submit to the NHDES-WD a proposed plan and implementation schedule for adopting such authority and implementing an

2. This NPDES Discharge Permit is issued by the EPA under Federal and State law. Upon final issuance by the EPA, the NHDES-WD may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of the Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation.

Part II.D. Whole Effluent Toxicity Test Frequency Adjustment

The permittee may submit a written request to the EPA requesting a reduction in the frequency (to not less than once per year) of required toxicity testing, after completion of a minimum of the most recent four (4) successive toxicity tests of effluent, all of which must be valid tests and demonstrate compliance with the permit limits for whole effluent toxicity. Until written notice is received by certified mail from the EPA indicating that the Whole Effluent Testing requirement has been changed, the permittee is required to continue testing at the frequency specified in the respective permit.

Part III. Common Elements For All Permits in New Hampshire and Massachusetts

A. Effluent Quality

- 1. The discharge shall not cause a violation of the water quality standards of the receiving waters;
- 2. The discharge shall not cause objectionable discoloration of the receiving waters;
- 3. The discharge shall be adequately treated to insure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants. It shall be adequately treated to insure that the surface waters remain free from pollutants which produce odor, color, taste or turbidity in the receiving waters which is not naturally occurring and would render it unsuitable for the designated uses.
- 4. The discharge shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- 5. The permittee's treatment facility shall maintain a minimum of 85 percent removal of total suspended solids and 85 percent removal of either carbonaceous biochemical oxygen demand or biochemical oxygen demand. The percent removal shall be a comparison of average monthly influent versus average monthly effluent concentrations.
- 6. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the design flow, the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the permittee may be required to submit plans for facility improvements.
- 7. If the permittee uses chlorine for disinfection, they shall minimize the use of chlorine while maintaining adequate bacterial control.

B. Adequate Notification of Pollutants Introduced into the Publicly Owned Treatment Works (POTWs) or other Treatment Works Treating Domestic Sewage

- 1. All POTWs and other treatment works treating domestic sewage must provide adequate notice to the Director of the following:
 - a. Any new introduction of pollutants into the POTW or other treatment works treating domestic sewage from an indirect discharger in a primary industry category (see 40 CFR Part 122, Appendix A as amended) discharging process water; and,
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW or other treatment works treating domestic sewage by a source introducing pollutants into the POTW or other treatment works treating domestic sewage at the time of issuance of the permit.
 - c. For purposes of this paragraph, adequate notice shall include information on:
 - (1.) the quantity and quality of effluent introduced into the POTW or other treatment works treating domestic sewage; and,
 - (2.) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW or other treatment works treating domestic sewage.

C. Prohibitions Concerning Interference and Pass-Through

Pollutants introduced into POTWs or other treatment works treating domestic sewage by a non-domestic source (user) shall not pass through the POTW or other treatment works treating domestic sewage or interfere with the operation or performance of the works.

D. Industrial Users

The permittee shall submit to EPA, MADEP, and/or NHDES-WD the name of any Industrial User (IU) subject to Categorical Pretreatment Standards under 40 CFR §403.6 and Chapter I, Subchapter N who commences discharge to the treatment works after the active date of permit coverage. This reporting requirement also applies to any other IU that discharges an average of 25,000 gallons per day or more of process wastewater into the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater) or contributes a process wastewater which makes up five (5) percent or more of the average dry-weather hydraulic or organic capacity of the POTW; or is designated as such by the Control Authority as defined in 40 CFR §403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR §403.8(f)(6)).

If upon review of such information the Director determines that the permittee must develop an Industrial Pretreatment Program, the permittee will be so notified and will no longer be eligible for coverage under this general permit.

In the event that the permittee receives reports (baseline monitoring reports, 90-day compliance reports, periodic reports on continued compliance, etc.) from IUs subject to Categorical Pretreatment Standards under 40 CFR §403.6 and 40 CFR Chapter I, Subchapter N, the permittee shall forward all copies of these reports within ninety (90) days of their receipt to EPA, MADEP and/or NHDES-WD.

E. Toxics Control

- 1. The permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.
- 2. Any components of the effluent shall not result in any demonstrable harm to aquatic life or violate

any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, these permits may be revised or amended in accordance with such standards, the permittee being so notified.

F. Numerical Effluent Limitations for Toxicants

EPA or the State may use the results of the toxicity tests and chemical analyses conducted pursuant to these permits, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

G. Unauthorized Discharges

The permittee is authorized to discharge only in accordance with the terms and conditions of this General Permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs) or combined sewer overflows (CSOs) are not authorized by this permit and shall be reported in accordance with Part IV, Standard Conditions, Section D.1.e., Reporting Requirements (Twenty-four hour oral reporting, five-day written reporting).

H. Geographic Coverage Area

- Massachusetts (Permit No. MAG580000). All of the discharges to be authorized by this general NPDES permit for dischargers in the Commonwealth of Massachusetts are into all waters of the Commonwealth and Indian Country lands unless otherwise restricted by the Massachusetts Surface Water Quality Standards, 314 CMR 4.00 (or as revised), including 314 CMR 4.04(3) Protection of Outstanding Resource Waters.
- 2. New Hampshire (Permit No. NHG580000). All of the discharges to be authorized by this general NPDES permit for dischargers in the State of New Hampshire are into all waters of the State of New Hampshire unless otherwise restricted by the State Water Quality Standards: see 50 RSA § 485-A:8 and the N.H. Code of Administrative Rules, Env-Ws 1700-1709 or as revised.

I. Sludge Conditions

- 1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards.
- 2. The permittee shall comply with the more stringent of either the state or federal (40 CFR Part 503), requirements.
- 3. The requirements and technical standards of 40 CFR Part 503 apply to facilities which perform one or more of the following use or disposal practices.
 - (1) Land application the use of sewage sludge to condition or fertilize the soil.
 - (2) Surface disposal the placement of sewage sludge in a sludge only landfill.
 - (3) Sewage sludge incineration in a sludge only incinerator.
- 4. The 40 CFR Part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which do not dispose of sewage sludge during the life of the permit but rather treat the sludge (lagoons-reed beds), or are otherwise excluded under 40 CFR §503.6.
- 5. The permittee shall use and comply with the sludge compliance guidance document (November 4, 1999) to determine appropriate conditions. Appropriate conditions contain the following elements.
 - General requirements

- Pollutant limitations
- Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
- Management practices
- · Record keeping
- Monitoring
- Reporting

Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year:

less than 29 tons 1/ year
290 to less than 1,500 tons 1/quarter
1,500 to less than 15,000 tons 6/year
greater than 15,000 tons 1/month

- 7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR §503.8.
- 8. The permittee shall submit an annual report containing the information specified in the sludge compliance guidance document by **February 19th**. Reports shall be submitted to the address contained in the reporting condition of the permit, Part III.N. Sludge monitoring is not required by the permittee when the permittee is not responsible for the ultimate sludge disposal.

The permittee must be assured that any third-party contractor is in compliance with appropriate regulatory requirements. In such case, the permittee is required only to submit an annual report by **February 19th** containing the following information:

- Name and address of contractor responsible for sludge disposal.
- Quantity of sludge in dry metric tons removed from the facility by the sludge contractor.

J. Monitoring Requirements and Reporting

- 1. Additional Monitoring: In addition to the toxicity testing requirements contained in the State specific general permits, upon request by EPA and/or the state agency, an acute toxicity test shall be performed on the discharge by the permittee. Testing shall be performed in accordance with EPA toxicity protocol to be provided by EPA at the time of the request. The test shall be performed on a 24-hour composite sample, unless otherwise approved by EPA, to be taken during normal facility operation. Test results (LC₅₀) and associated documentation shall be forwarded to State and EPA within 30 days after test completion.
- Reporting: Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) (DMR(s) postmarked no later than the 15th day of the month following the completed reporting period. Signed and dated original DMRs, and all other reports required herein or in Part IV., shall be submitted to EPA-New England and the appropriate State Agency at the addresses listed in Part III.N. Massachusetts discharges must also submit copies of all DMRs to the Regional Office where the discharge occurs.

K. Permit Coverage, Exclusions. and Limitations:

- 1. General permit coverage is available to those Publically Owned Treatment Works and other treatment works that treat domestic sewage that are classified as Major and Minor dischargers. For this general permit, Major dischargers include facilities with design flows equal to or greater than one million gallons per day and certain facilities that discharge to rivers with water quality concerns. The remaining facilities are classified as Minor dischargers. General permit coverage is available to Minor discharges in Massachusetts and to Major and Minor dischargers in New Hampshire that meet the requirements of this part.
- 2. EPA has determined that these general permits will not be available to:
 - a. Any facility that is not defined as a POTW or as an other Treatment Works Treating Domestic Sewage;
 - b. Any POTW with an EPA-approved Industrial Pretreatment Program or any POTW required to develop an Industrial Pretreatment Program;
 - c. Any facility with a dilution factor of less than 50:1;
 - d. Any facility that discharges to the territorial sea;
 - e. Any facility that discharges to an outstanding natural resource water or Area of Critical Environmental Concern (ACEC) in Massachusetts, or to Class A or an outstanding resource water in New Hampshire;
 - f. Any facility with Combined Sewer Overflows;
 - g. Any "New Source" as defined in 40 CFR 122.2;
 - h. Any facility whose discharge(s) may adversely affect threatened or endangered species or its critical habitat;
 - Any facility which adversely affect properties listed or eligible for listing in the National Registry of Historic Places under the National Historic Preservation Act of 1966, 16 USC SS470 et.seq.;
 - j. Any applicant who owns or operators a sewage sludge incinerator;
 - k. Any facility whose new or increase discharge is not in compliance with the state's antidegradation policy.
 - 1. Any facility that has an individual permit containing water quality-based effluent limits more stringent than, or not addressed by, these general permits; and,
 - m. Any facility discharging to an impaired water included on the CWA section 303(d) listing for the state, where the discharge contains the pollutant/stressor causing the impairment according to the 303(d) listing.
 - n. Any facility that the Director determines inappropriate for a general permit based on consideration of the following factors:
 - (a) The variability of the pollutants or pollutant parameters in the effluent (based on chemical-specific information, the type of treatment facility, and the types of industrial contributors);

- (b) Existing controls on point or nonpoint sources, including total maximum daily load calculations for the water body segment and the relative contribution of the discharger;
- (c) Receiving stream characteristics, including possible or known water quality impairment;
- (d) Recommendation from the state;
- (e) Other considerations (including but not limited to consultation with the state, a history of toxic impact or compliance problems at the facility) which the Director determines could cause or contribute to adverse water quality impacts; or,
- (f) Facility that discharges to a river designated as a Wild and Scenic River.
- 3. Permit Coverage Exclusion: Any owner or operator authorized by a general permit may request to be excluded from coverage of a general permit by applying for an individual permit within 90 days after publication of the notice of final general permit issuance in the Federal Register. This request may be made by submitting a NPDES permit application together with reasons supporting the request. The Director may require any person authorized by this general permit to apply for and obtain an individual permit. Any interested person may petition the Director to take such action. Instances where an individual permit may be required include the following:
 - a. The discharger is not in compliance with the terms and conditions of the general permit;
 - b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
 - c. Effluent limitations guidelines are promulgated for the point sources covered by the general NPDES permit;
 - d. A Water Quality Management Plan or Total Maximum Daily Load containing requirements applicable to such point sources is approved;
 - e. Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;
 - f. The discharge(s) is a significant contributor of pollution or in violation of State Water Quality Standards for the receiving water; or,
 - g. The discharge(s) adversely impacts any federally managed species for which Essential Fish Habitat has been designated.
 - h. The point source(s) authorized to discharge under this General Permit no longer:
 - (1) Involves the same or substantially similar types of operations;
 - (2) Discharges the same types of wastes;
 - (3) Requires the same effluent limitations or operating conditions;
 - (4) Requires the same or similar monitoring; or
 - (5) In the opinion of the Director, is more appropriately controlled under an individual NPDES permit rather than under the general permit.

The Director may require an individual permit only if the permittee authorized by the general permit has been

notified in writing that an individual permit is required, and has been given a brief explanation of the reasons for this decision. In accordance with 40 CFR §122.28(b)(3)(iv), the applicability of this general permit to a specific discharger is automatically terminated on the effective date of the individual permit.

- 4. Limitations on Coverage: Facilities seeking coverage under this General Permit must certify compliance with the requirements of the National Historical Preservation Act (NHPA) and the Endangered Species Act (ESA), where applicable. Coverage under this permit is available if the proper coordination or consultation has been conducted, according to the following requirements:
 - a. <u>Discharges with Effects on Historic Properties</u> The applicant, for any new or increased discharge, must be in compliance with the NHPA in order to be eligible for coverage under this General Permit. The Historic Properties Guidance document in Attachment C provides the process applicants must follow to meet the permit eligibility criteria for protection of historic properties under this permit.
 - (1) Applicants for any new or increased discharge are required to certify eligibility for coverage under the General Permit on their Notice of Intent submittal (See Parts III.M.1.i or M.2.l) and to maintain any supporting documentation that supports that determination.
 - b. <u>Endangered and Threatened Species and/or Critical Habitat</u> Applicants with discharges that are located in areas in which listed species may be present are not automatically covered under this General Permit. These applicant must demonstrate eligibility using the Endangered Species Guidance document in Attachment D and the most recent Endangered and Threatened Species County-Species List available from EPA. Eligibility must be determined prior to submission of the NOI. The most current list is available at: http://www.epa.gov/npdes/.

The federally-listed endangered dwarf wedgemussel (<u>Alasmidonta heterodon</u>) is found in the following areas in Massachusetts and New Hampshire:

- 1. Connecticut River from Northumberland to Dalton, NH, and in North Thetford, Vermont.
- 2. Connecticut River from Lebanon to Charlestown, NH
- 3. Ashuelot River downstream of the Surry Mountain Dam to Keene, NH
- 4. South Branch of Ashuelot River in East Swanzey, NH
- 5. Mill River in Whately and Hatfield, MA
- 6. Mill River Diversion in Northampton, MA

The federally-listed endangered shortnose sturgeon (<u>Acipenser brevirostrum</u>) is found in the Connecticut River downstream of Turners Falls, MA and in the Merrimack River downstream of the Essex Dam in Lawrence MA. Discharges into these waters may be covered by this General Permit only if the applicants meet one or more of the ESA eligibility criteria (Criterion A, Criterion B, Criterion C, Criterion D, or Criterion E) in **Attachment D, Section C, ESA Eligibility Criteria.**

- (1.) Applicants who choose to conduct informal consultation to meet the ESA eligibility requirements of this General Permit are automatically designated as non-Federal representatives under this permit. See 50 CFR 402.08. Applicants who choose to conduct informal consultation as a non-Federal representative must notify EPA-New England, U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) (jointly, the Services) in writing of that decision.
- (2.) Permit applicants must submit a copy of the Services' written concurrence with their Notice of Intent submittal. Applicants are required to certify eligibility for coverage under the general permit on their Notice of Intent submittal (See Parts III.M.1.h or M.2.k) and to maintain any supporting documentation for that determination.
- (3.) Applicants who choose not to conduct informal consultations with the Services on ESA requirements must submit an individual permit application to the permitting authorities.

c. <u>Discharge Management Program</u> The permittee must prepare and implement a Discharge Management Program for the POTW or other treatment works specific to the requirements for the NHPA and ESA. The Discharge Management Program shall maintain documentation and information used to determine the NHPA and ESA eligibility criteria under this permit. This documentation shall include any necessary activities and measures required to mitigate or prevent adverse effects on historic properties resulting from a written agreement with a State or Tribal Preservation Officer and the contents of this written agreement. The permittee shall make the Discharge Management Program available upon written request to the Director or an authorized representative.

The following measures are to be implemented during the term of this General Permit:

- (1.) Any necessary activities and measures required to mitigate or prevent adverse effects on historic properties, and
- (2.) Any terms and conditions imposed under the ESA eligibility requirements to ensure the wastewater discharges and discharge-related activities do not pose adverse effects or jeopardy to listed species and/or critical habitat.

L. Administrative Aspects

1. Request to be covered. A facility is not covered by any of these general permits until it meets the following requirements. First, it must send a Notice of Intent, with all of the required information, to EPA and the appropriate State Agency indicating it meets the requirements of the permit and wants to be covered. And second, it must be notified by certified mail from EPA that it is covered by the appropriate general permit.

2. Eligibility to Apply:

- a. Any facility operating under an effective (unexpired) individual NPDES permit may request that the individual permit be revoked and that coverage under the general permit be granted, as outlined in 40 CFR §122.28(b)(3)(v). If EPA revokes the individual permit, the general permit will apply to the discharge.
- b. Facilities with expired individual permits that have been administratively continued in accordance with 40 CFR §122.6 may apply for coverage under this General Permit. When coverage under the general permit is granted, the expired individual permit will automatically cease to be in effect.
- c. Proposed new dischargers that are eligible may apply for coverage and must submit the Notice of Intent at least 180 days prior to the discharge.
- 3. Continuation of this general permit after expiration. If this general permit is not reissued prior to its expiration date (five years from date of its publication in the Federal Register), it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and in effect as long as the permittee submits a new Notice of Intent at least 180 days prior to the expiration date of the general permit. However, once this general permit expires EPA cannot provide written notification of coverage under this general permit to any permittee who submits Notice of Intent to EPA after the general permit's expiration date. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued general permit until the earlier of:
 - a. Reissuance of this general permit, at which time the permittee must comply with the Notice of Intent conditions of the new permit to maintain authorization to discharge; or
 - b. The permittee's submittal of a Notice of Termination in accordance with Part III.L.4 below; or
 - c. Issuance of an individual permit for the permittee's discharges; or
 - d. A formal permit decision by the Director not to reissue this General Permit, at which time the permittee must seek coverage under an alternative general permit or an individual permit.
- 4. Termination of Discharge. Owners and operators of facilities authorized under this permit shall notify the Director in writing upon the termination of discharges. The notice must contain the name, mailing address, and

location of the facility for which the notification is submitted, the NPDES permit number for the discharge identified by the notice, and an indication of whether the discharge has been eliminated or the owner or operator of the discharge has changed. This notice shall be sent to EPA-New England and the appropriate State authority listed in Part III.N. The notice must be signed in accordance with the signatory requirements of 40 CFR §122.22.

M. Notification Requirements

- 1. Specific Notification Requirements for facilities located in Massachusetts:
 - a. Each facility, within the geographic coverage are specified in Part III.H. seeking coverage by the general permit must complete the Notice of Intent (NOI). The NOI includes the request for permit coverage with the general permit the facility is seeking coverage under specified (Massachusetts General Permit MAG580000, Part I.A., Minor facilities discharging to Freshwater; or Part I.B., Minor facilities discharging to Marine waters); and the information on the NPDES Form 2A Application Form completed in Part III.M.1.a or c.; and the supplemental information requested below at Parts III.M.1.d to j, as applicable.

Any permittee, with a complete NPDES permit application on file with EPA-New England and the State, consisting of the NPDES Form 2A Application, may use this previously submitted Form 2A to seek general permit coverage. The NOI, in this situation is the request for permit coverage including a copy of the complete application letter received from EPA-New England, and the supplemental information requested below at Parts III.M.1.d to j, as applicable.

b. Each facility must submit a copy of the NOI information to EPA-New England at the address below and the appropriate State authority listed at Part III.N.2a and 2b.

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- c. Information necessary for purposes of this general permit on the NPDES Form 2A Application Form is the completion of Part A (items A.1 through A.12) and if required Part B. The minimum sampling requirements for a Minor Facility requesting coverage under this general permit is one sampling event for NPDES Form 2A, Part B if required. Facilities with a design flow greater than or equal to 0.1 million gallons per day are required to complete the sampling testing requirements in Part B. The sampling event must be within the past two years.
- d. Provide the following facility information: topographic map with the location of the treatment plant and outfall(s); process flow diagram or schematic showing the processes of treatment from the headworks to the outfall; number of discharge points; and the sludge use and disposal practice(s) from one of the following: land application, surface disposal, sewerage sludge incineration, and other (submit details).
- e. Prior to submitting the NOI, all facilities must confirm the annual 7Q10 flow, design flow, dilution factor, mass loading limitations for BOD₅ (or CBOD₅) and TSS, and TRC limits with the appropriate state agency. The State will confirm this information in writing. A copy of the State's written confirmation must be submitted with the NOI form. All facilities must calculate their design BOD₅ (or CBOD₅) and TSS Loading Limitations and include those calculations as part of their NOI. See Attachment C of the Fact Sheet and Part I.A. or B of the general permit for information on these calculations.
- f. The permittee may request CBOD₅ limitations in place of BOD₅ limitations using the NOI form.
- g. For any facility proposing a new or increased discharge, the MADEP must be contacted prior to filing the NOI to determine if the facility will be required to provide any additional information

including instream water quality information.

- h. Each applicant for a discharge, in the areas identified in Part III.K.4.b, must certify that each discharge for which it is seeking coverage under this general permit is eligible under the Endangered Species Act requirements and whether the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service was involved in making the determination and where applicable, must submit a copy of the Services' written concurrence with their NOI.
- Each applicant for a new or increased discharge must certify that each discharge for which it is seeking coverage under this general permit is eligible under the National Historic Preservation Act and whether the State Historic Preservation officer or Tribal Historic Preservation Officer was involved in the determination of eligibility.
- j. An applicant using chlorine as the method of disinfection may request to seasonally disinfect the wastewater with submission of the NOI. The permittee will receive written approval to utilize seasonal disinfection from EPA and the MADEP with the authorization for permit coverage.
- The Notice of Intent must be signed in accordance with the signatory requirements of 40 CFR §122.22.
- Receipt of NOI by EPA and MADEP: The facilities authorized to discharge under the final
 general permits will receive written notification from EPA-New England and the MADEP. Failure
 to submit to EPA-New England a NOI to be covered and/or failure to receive from EPA written
 notification of permit coverage means that the facility is not authorized to discharge under this
 general permit. Facilities that are denied permit coverage by EPA-New England are not
 authorized under this general permit to discharge from those facilities to the receiving waters.
- m. Copies of the state application forms and transmittal form may be obtained from the MADEP website http://www.mass.gov/dep/brp/npdes/surffms.htm. Applications may also be available by telephoning the MADEP Info Line at 617-338-2255 or 1-800-462-0444 in area codes outside 617; or from any MADEP Regional Service Center.

Municipal POTWs should submit a transmittal and the application for BRP WM 07 - Permit Renewal/Plan Modification (Non-Industrial) and BRP WM 02A - Application for Permit to Discharge Municipal Wastewater. Treatment facilities treating domestic sewage should submit a transmittal form, the application for BRP WM 07 - Permit Renewal/Plan Modification (Non-Industrial), and the required fee. Applicants for new discharges should submit a transmittal form the application for BRP WM 06 - Permit and Plan Approval for Type I Discharge (Non-Industrial), and the required fee. Applicants should include a plant schematic, topographic map or similar map showing the location of the outfall and where dilution water is collected for toxicity tests, and the required information in Notification Requirements.

In the future, MADEP may establish a separate permit category for this minor POTW and sanitary wastewater facilities general permit.

2. Specific Notification Requirements for facilities located in New Hampshire:

a. Each facility, within the geographic coverage are specified in Part III.H. seeking coverage by the general permit must complete the Notice of Intent (NOI). The NOI includes the request for permit coverage with the general permit the facility is seeking coverage under specified (New Hampshire General Permit NHG580000, Part II.A. Discharges to Freshwaters or Part II.B. Discharges to Marine waters); and the information on the NPDES Form 2A Application Form [Part A (item A.1 through A.12); the applicable sampling results for Parts B, D, and E]; and the supplemental information required below at Parts III.M.2.f to m, as applicable.

Any permittee, with a complete NPDES permit application on file with EPA-New England and the

State authority, consisting of the NPDES Form 2A Application, may use this previously submitted Form 2A information to seek general permit coverage. The NOI, in this situation is the request for permit coverage including a copy of the complete application letter received from EPA-New England, and the supplemental information requested below at Parts III.M.2.f to m, as applicable.

- b. Each facility without a complete NPDES permit application on file with EPA-New England and the State must complete the Notice of Intent (NOI) form required by the New Hampshire Department of Environmental Services (NHDES) and submit the form to the NHDES at the address provided in Part III.N.3. EPA-New England will accept the complete NHDES's NOI form in lieu of the notification information required in Part III.M.2.a. The NHDES's NOI form requires sampling for the parameters list in Form 2A and the supplemental information requested below at Parts III.M.2.f to m.
- c. Each facility must submit a copy of the NOI information to EPA-New England at the address below and the NHDES at the address provided in Part III.M.3.

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- d. The minimum effluent sampling requirements for a Major Facility, requesting coverage under this General Permit, is one sampling event to complete the effluent testing requirements in NPDES Form 2A, Parts A, B, D, and E. The sampling event must be within the past two years.
- e. The minimum sampling requirements for a Minor Facility, requesting coverage under this General Permit, is one sampling event to complete the effluent testing requirements in NPDES Form 2A, Part A and if required Part B. Facilities with a design flow greater than or equal to 0.1 million gallons per day are required to complete the sampling testing requirements in Part B. The sampling event must be within the past two years.
- f. The NOI must state whether the discharge is located near a designated beach as determined by the NHDES.
- g. Provide the following facility information: topographic map with the location of the treatment plant and outfall(s); process flow diagram or schematic showing the processes of treatment from the headworks to the outfall; number of discharge points; and the sludge use and disposal practice(s) from one of the following: land application, surface disposal, sewerage sludge incineration, and other (submit details).
- h. Prior to submitting the NOI, all facilities must confirm the annual 7Q10 flow, design flow, dilution factor, mass loading limitations for BOD_5 (or $CBOD_{5)}$ and TSS, and TRC limits with the NHDES. The State will confirm this information in writing. A copy of the State's written confirmation must be submitted to EPA-New England. See Attachment C of the Fact Sheet and Part II.A. or II.B. of the general permit for information on calculating mass loading limits.
- i. The permittee may request CBOD₅ limitations in place of BOD₅ limitations using the NOI form.
- j. For any facility proposing a new or increased discharge, the NHDES must be contacted prior to filing the NOI to determine if the facility will be required to provide any additional information including instream water quality information.
- k. Each applicant for a discharge, in the areas identified in Part III.K.4.b, must certify that each discharge for which it is seeking coverage under this general permit is eligible under the Endangered Species Act requirements and whether the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service was involved in making the determination and where

applicable, must submit a copy of the Services' written concurrence with their NOI.

- Each applicant, for a new or increased discharge, must certify that each discharge for which it is seeking coverage under this general permit is eligible under the National Historic Preservation Act and whether the State Historic Preservation officer or Tribal Historic Preservation Officer was involved in the determination of eligibility.
- The Notice of Intent must be signed in accordance with the signatory requirements of 40 CFR §122.22.
- n. Receipt of NOI by EPA and NHDES: The facilities authorized to discharge under the final general permits will receive written notification from EPA-New England and the NHDES. Failure to submit to EPA-New England a NOI to be covered and/or failure to receive from EPA written notification of permit coverage means that the facility is not authorized to discharge under this general permit. Facilities that are denied permit coverage by EPA-New England are not authorized under this general permit to discharge from those facilities to the receiving waters.

N. Federal and State Addresses and Contact Information

All notifications, Discharge Monitoring Reports (DMRs), toxicity test results, other submittals, and communications required herein or in Part IV. shall be sent to both EPA-New England and the appropriate State offices at the following addresses:

- U.S. EPA-New England, Region I Water Technical Unit (SEW)
 P.O. Box 8127
 Boston, Massachusetts 02114-8127
- Massachusetts Department of Environmental Protection
 Division of Watershed Management
 Surface Water Discharge Permit Program
 Main Street
 Worcester, MA 01608
- 2b. In addition, for permitted facilities in Massachusetts, the Regional Offices where the discharge occurs, shall receive a copy of the DMRs, toxicity test results, other required submittals, and communications required herein. Regional Office Addresses are:

Massachusetts Department of Environmental Protection Western Regional Office Bureau of Resource Protection 436 Dwight Street, Suite 402 Springfield, MA 01103

Massachusetts Department of Environmental Protection Southeast Regional Office Bureau of Resource Protection 20 Riverside Drive Lakeville, MA 02347

Massachusetts Department of Environmental Protection Northeast Regional Office Bureau of Resource Protection One Winter Street Boston, MA 02108

Massachusetts Department of Environmental Protection Central Regional Office Bureau of Resource Protection 627 Main Street Worcester, Massachusetts 01608

 New Hampshire Department of Environmental Services Water Division, Wastewater Engineering Bureau
 Hazen Drive P.O. Box 95
 Concord, New Hampshire 03302-0095

O. Additional Permit Conditions Applicable to Specific States or Indian Country Lands

(If required, to be completed following State certification process and the public notice period.)

P. Summary of Responses to Public Comments

(Responses to be the public comments will be provided in the Response to Comments document.)

(Note: The following documents are separate attachments with this permit.)

Attachment A Freshwater Acute Toxicity Test Procedure and Protocol

Attachment B Marine Acute Toxicity Test Procedure and Protocol

Attachment C Historic Properties Guidance

Attachment D Endangered Species Guidance

EPA Region I NPDES Permit Sludge Compliance Guidance (November 4,1999)

Part IV. Standard Conditions